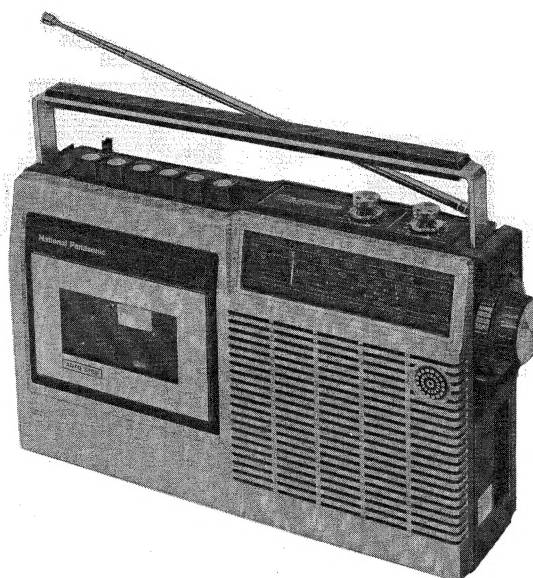


# Service Manual

Radio Cassette  
**RQ-511S-E**

FM/AM Radio Cassette Recorder with  
Built-in Condenser Microphone



## RQ-416 MECHANISM SERIES

### Specifications (Catalog specifications for sales)

Power requirement:	AC; 90 ~ 109/110 ~ 125/200 ~ 219/220 ~ 250 V, 50/60 Hz	Track system:	2-track monaural recording and playback
	Power consumption; 5 W	Input:	MIC; sensitivity 0.25 mV/applicable microphone impedance 200Ω ~ 600Ω (recommended microphone WM-2213N)
	Battery; 6 V (four R20 size dry batteries)		DC IN; 6 V
	Car/boat battery; with optional car/boat adaptor RP-917	Output:	EXT SP; 8Ω
Motor:	Mechanical governor motor	REC/PB connection:	5 P DIN type
Frequency response:	100 ~ 10,000 Hz	Speaker:	10 cm, PM dynamic speaker
Operation:	Pushbutton operation with Auto-Stop mechanism	Radio frequency	range: FM; 87.5 ~ 108 MHz
Tape speed:	4.8 cm/s		AM; 525 ~ 1,605 kHz
Program time:	1 hour with C-60 cassette tape	Dimensions:	30.7 cm(W) × 19.2 cm(H) × 8.3 cm(D)
Fast forward and		Weight:	2.2 kg
rewind time:	Approx. 110 seconds with C-60 cassette tape		

Specifications are subject to change without notice.

## LOCATION OF CONTROLS AND COMPONENTS

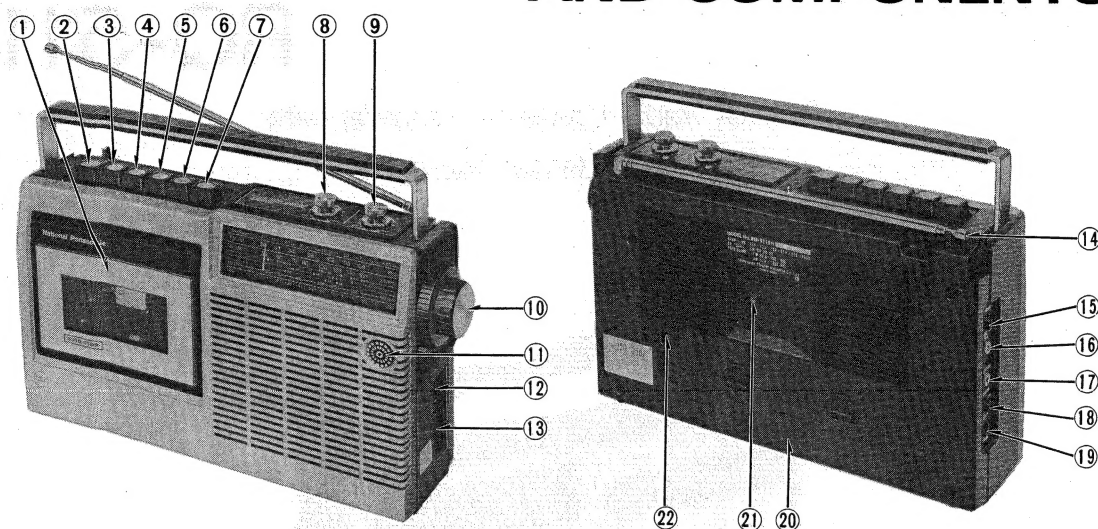


Fig. 1

- ① Cassette compartment cover
- ② Stop button
- ③ Fast forward button
- ④ Playback button
- ⑤ Rewind button
- ⑥ Record button
- ⑦ Cassette ejection button
- ⑧ Tone control

- ⑨ Volume control
- ⑩ Tuning control
- ⑪ Built-in microphone
- ⑫ DIN jack
- ⑬ AC socket
- ⑭ Antenna
- ⑮ Radio/tape selector
- ⑯ Microphone jack

- ⑰ External speaker jack
- ⑱ Monitor switch
- ⑲ Car adaptor jack
- ⑳ Battery compartment
- ㉑ Band selector
- ㉒ Voltage selector

## DISASSEMBLY INSTRUCTIONS

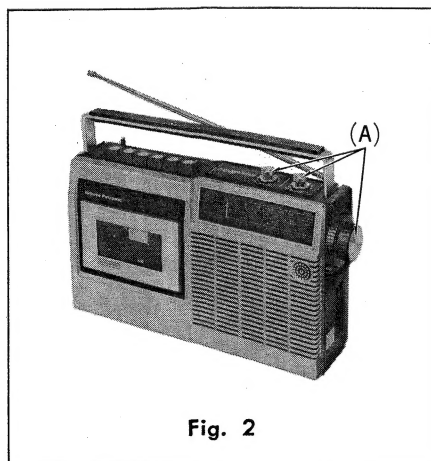


Fig. 2

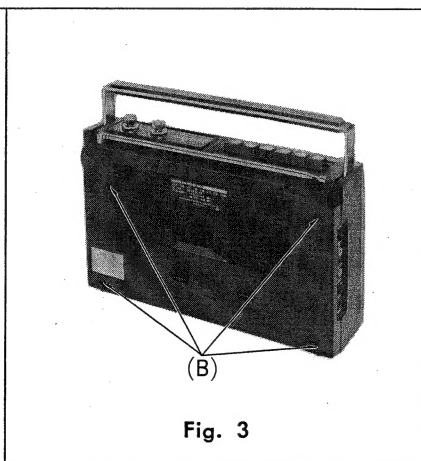


Fig. 3

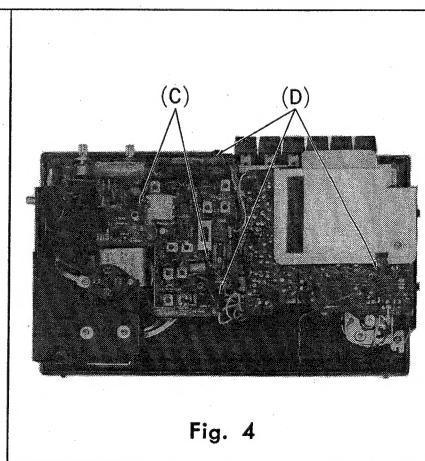


Fig. 4

Procedure	How to remove —	Remove —	Pcs.	Shown in fig. —
1	Bottom case assembly	(A), (B)	(3), (4)	(2), (3)
2	Radio section	(C)	(2)	(4)
3	Chassis	(D)	(3)	(4)

# ADJUSTMENTS

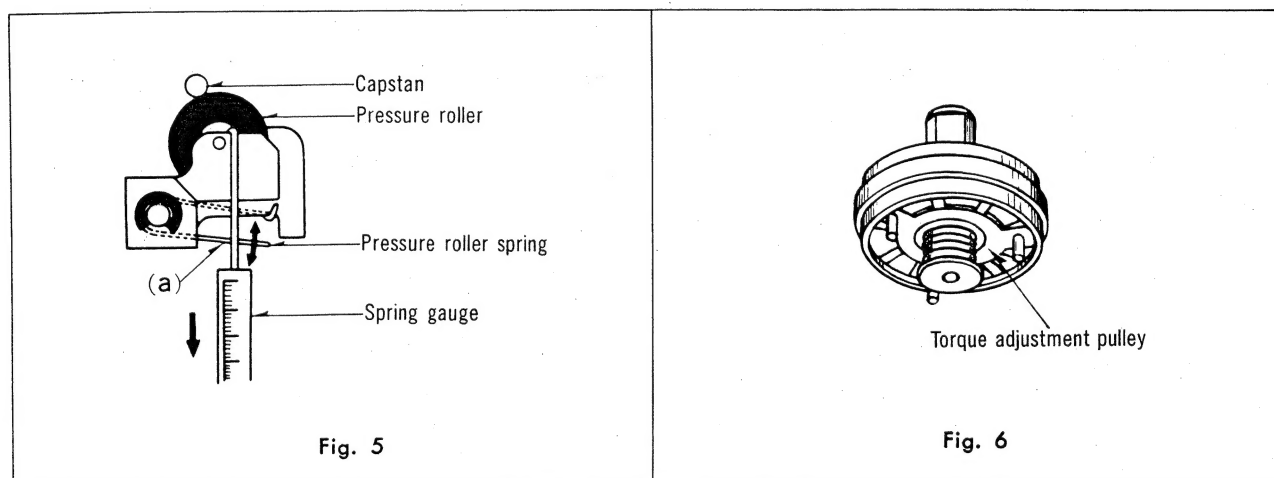
## MEASUREMENT AND ADJUSTMENT METHODS

### A. PRESSURE ROLLER ADJUSTMENT

1. Set into playback mode.
2. Connect the spring gauge to pressure roller lever and pull it in the direction of the arrow as shown in fig. 5.
3. Measure the tension at the moment when the pressure roller moves away from the capstan.  
Standard pressure:  $450 \pm 50$  gr
4. If the pressure is out of tolerance, bend the pressure roller lever spring (part a) in either direction shown by the arrow until the correct pressure is attained.

### B. TAKEUP TENSION ADJUSTMENT

1. Insert cassette torque meter (SRK-CT).
2. Set into playback mode and read the value.  
Standard takeup tension:  $55 \pm 15$  gr-cm
3. If the measured value is not within standard, adjustment can be done by turning torque adjustment pulley attached to the takeup reel table shown in fig. 6.

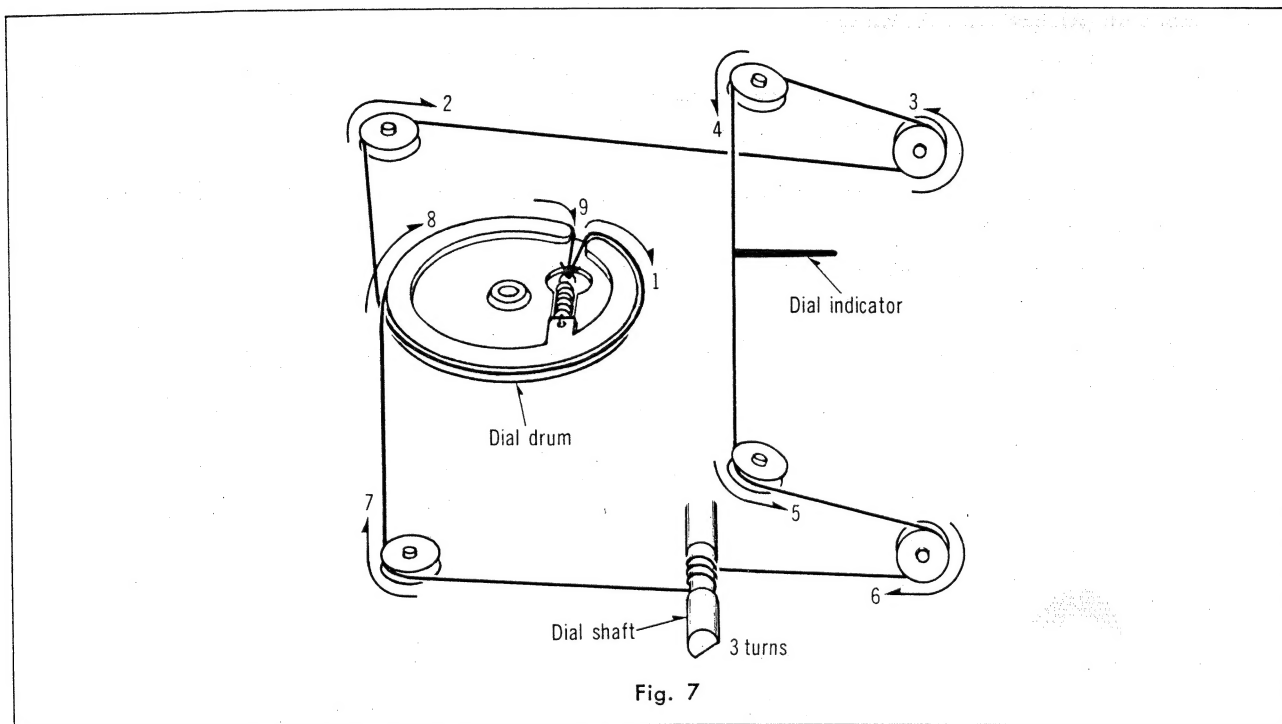


### C. OTHER SPECIFICATIONS FOR REFERENCE (NON ADJUSTABLE)

ITEM	VALUE	REMARKS
Tape speed fluctuation	$\pm 2\%$ or less	Use 3 kHz test tape (C-WAT).
Wow & flutter	RMS 0.36% or less	Use 3 kHz test tape (C-WAT).
Standard recording input level	1 kHz MIC: $-72 \pm 4$ dB	Standard recording current of the head: $40 \mu A$ .
Erase current	$8 \pm 1$ mA	_____

# ALIGNMENT INSTRUCTION FOR RADIO

## DIAL THREADING



## AM IF & RF ALIGNMENT

Output of signal generator should be no higher than necessary to obtain an output reading.

Set Volume control to maximum.

Set Band select switch to AM.

Maintain line voltage at 90 ~ 250 volts.

※ Adjustment parts are shown in the chart of Electrical parts location.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUSTMENT	REMARKS
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz (400 Hz Mod.)	Point of non-interference. (on/about 600 kHz)	Output meter across EXT SP jack.	T53 (1st IFT) T54 (2nd IFT) T57 (3rd IFT)	Adjust for maximum output.
2	Same as above.	550 kHz (400 Hz Mod.)	550 kHz	Output meter across EXT SP jack.	L54 (OSC coil)	Adjust for maximum output.
3	Same as above.	1,500 kHz (400 Hz Mod.)	1,500 kHz	Output meter across EXT SP jack.	VC1-8 (OSC trimmer) VC1-6 (ANT trimmer)	Adjust for maximum output. Repeat steps (2) and (3).

Note: 1. Cement antenna bobbin with wax after completing alignment.

2. Make certain that speaker system or dummy resistor (8Ω) is connected to the EXT SP jack when aligning.



## FM IF ALIGNMENT

### EQUIPMENT REQUIRED

Signal generator that provides 10.7 MHz marker.  
Sweep generator that provides 10.7 MHz and 400 kHz sweep width.

※ Adjustment parts are shown in the chart of Electrical parts location.

### OSCILLOSCOPE

Set sweep selector of oscilloscope to EXTERNAL SWEEP.  
Apply 60 Hz sweep signal from sweep generator to horizontal input terminals of oscilloscope.

Set Band selector to FM.  
Set Volume control to maximum.  
Maintain line voltage at 90 ~ 250 volts.

**Note:** Before alignment of step 1 below unsolder the connection of C83 shown in the chart of Electrical parts location and resolder it after alignment.

	SWEEP GENERATOR COUPLING	SIGNAL GENERATOR COUPLING	RADIO DIAL SETTING	INDICATOR	ADJUSTMENT	REMARKS
1	High side through 0.001 $\mu$ F to TP2. Common to chassis.	High side through 0.001 $\mu$ F to TP2. Common to chassis.	Point of non-interference. (on/about 90 MHz)	Connect vert. amp. of scope to C83. Common to chassis.	T51 (FM 1st IF) T52 (FM 2nd IF) T55 (FM 3rd IF) T56 (FM 4th IF) T58 (FM 5th IF)	Adjust for maximum amplitude and proper linearity. (See fig. 8)
2	Same as step 1.	Same as step 1.	Point of non-interference. (on/about 90 MHz)	Connect vert. amp. of scope to TP1. Common to chassis.	T59	To obtain proper linearity. (See fig. 9)

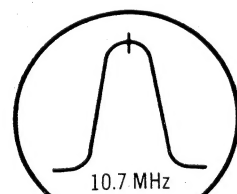


Fig. 8

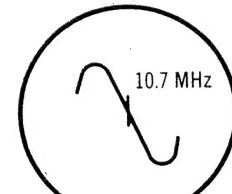


Fig. 9

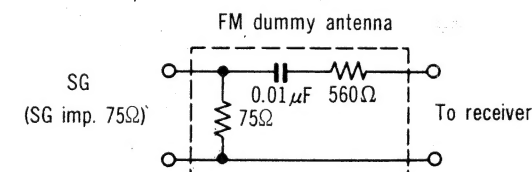


Fig. 10

## FM RF ALIGNMENT

Output of signal generator should be no higher than necessary to obtain an output reading.

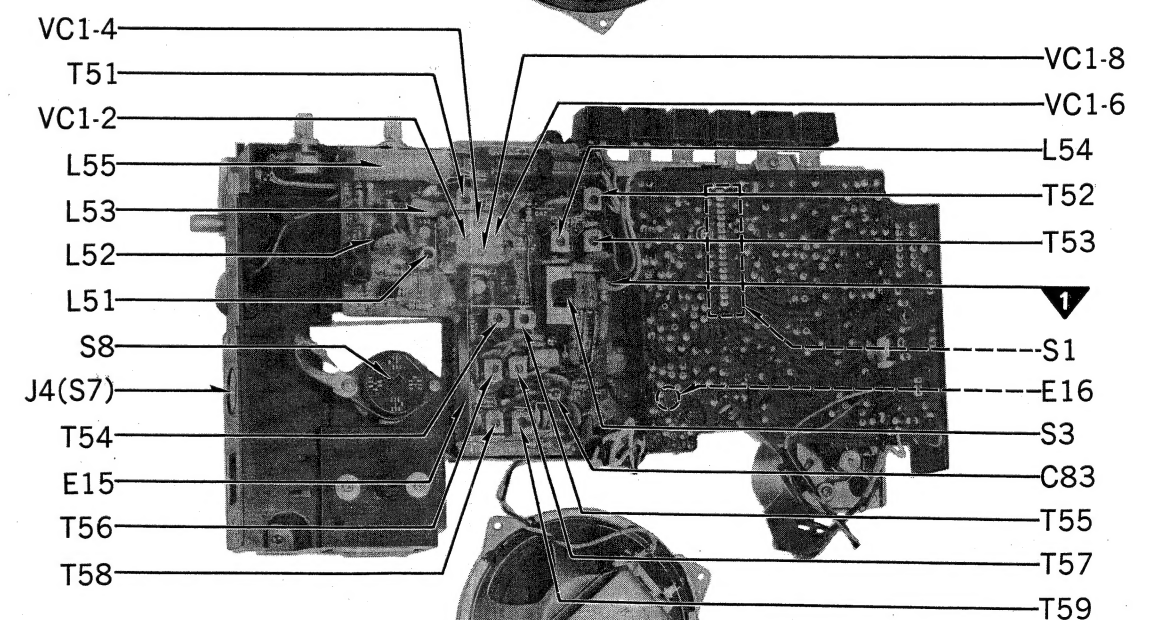
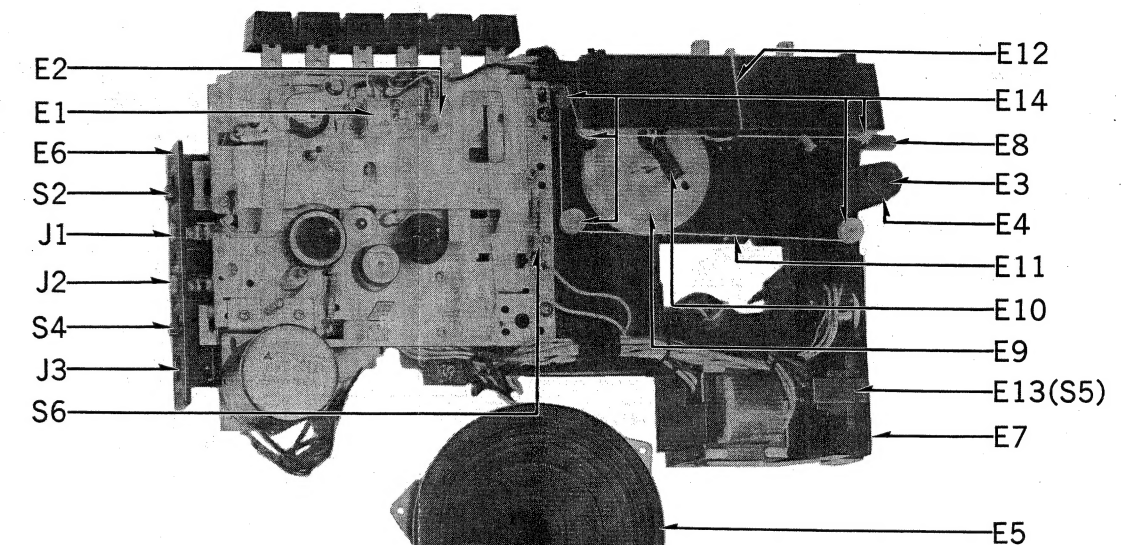
Set Band selector switch to FM.  
Set Volume control to maximum.  
Maintain line voltage at 90 ~ 250 volts.

※ Adjustment parts are shown in the chart of Electrical parts location.

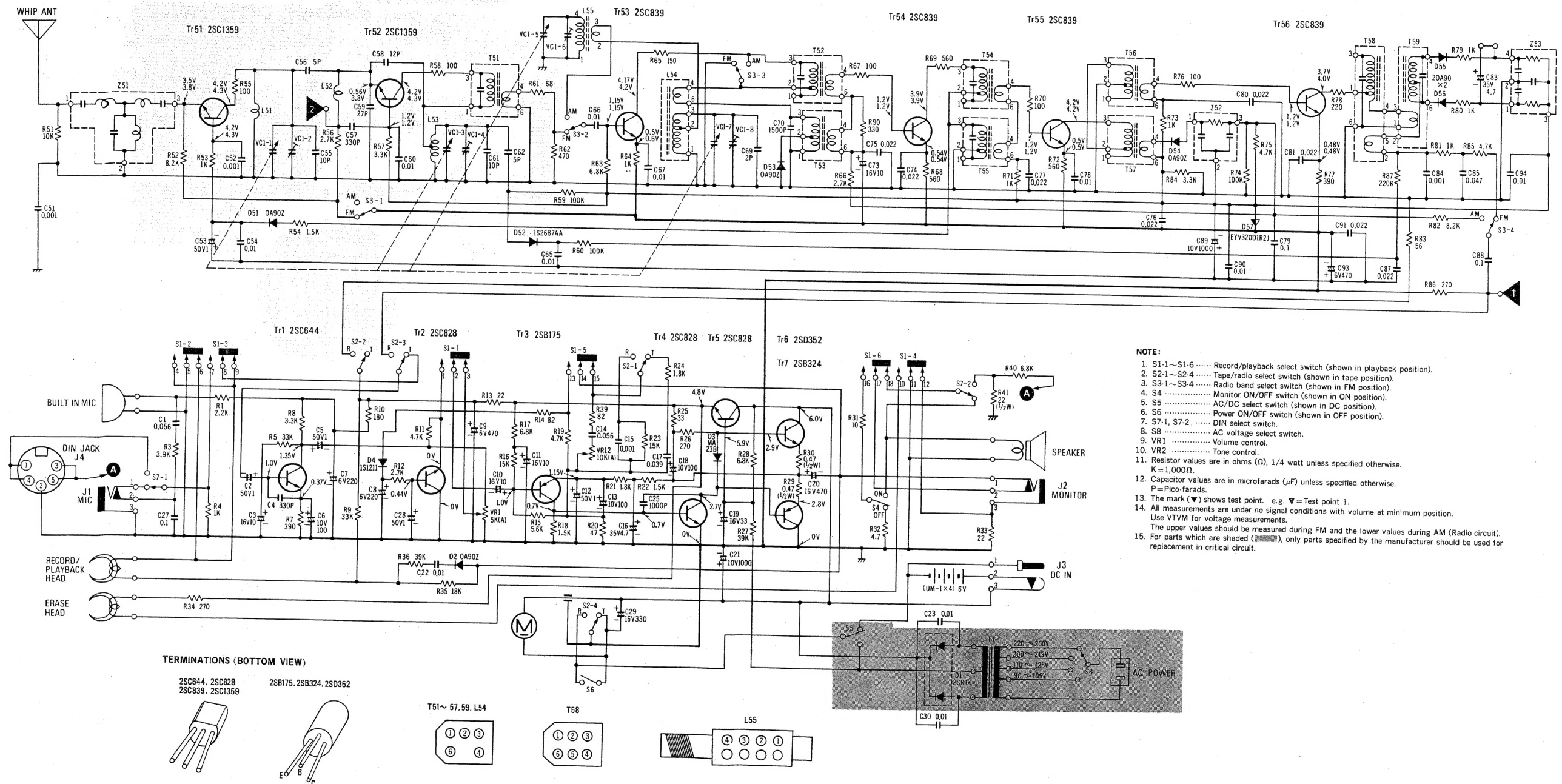
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUSTMENT	REMARKS
3	Connect to EXT FM antenna terminal through FM dummy antenna (See fig. 10). Common to chassis.	90 MHz (400 Hz Mod.)	90 MHz	Output meter across EXT SP jack.	L53 (FM OSC coil) L51 (FM collector coil)	Adjust for maximum output.
4	Same as step 3.	106 MHz (400 Hz Mod.)	106 MHz	Output meter across EXT SP jack.	VC1-4 (FM OSC trimmer) VC1-2 (FM collector trimmer)	Adjust for maximum output. Repeat steps (3) and (4).

**Note:** Whenever three output response peaks are noted, adjust for center response.

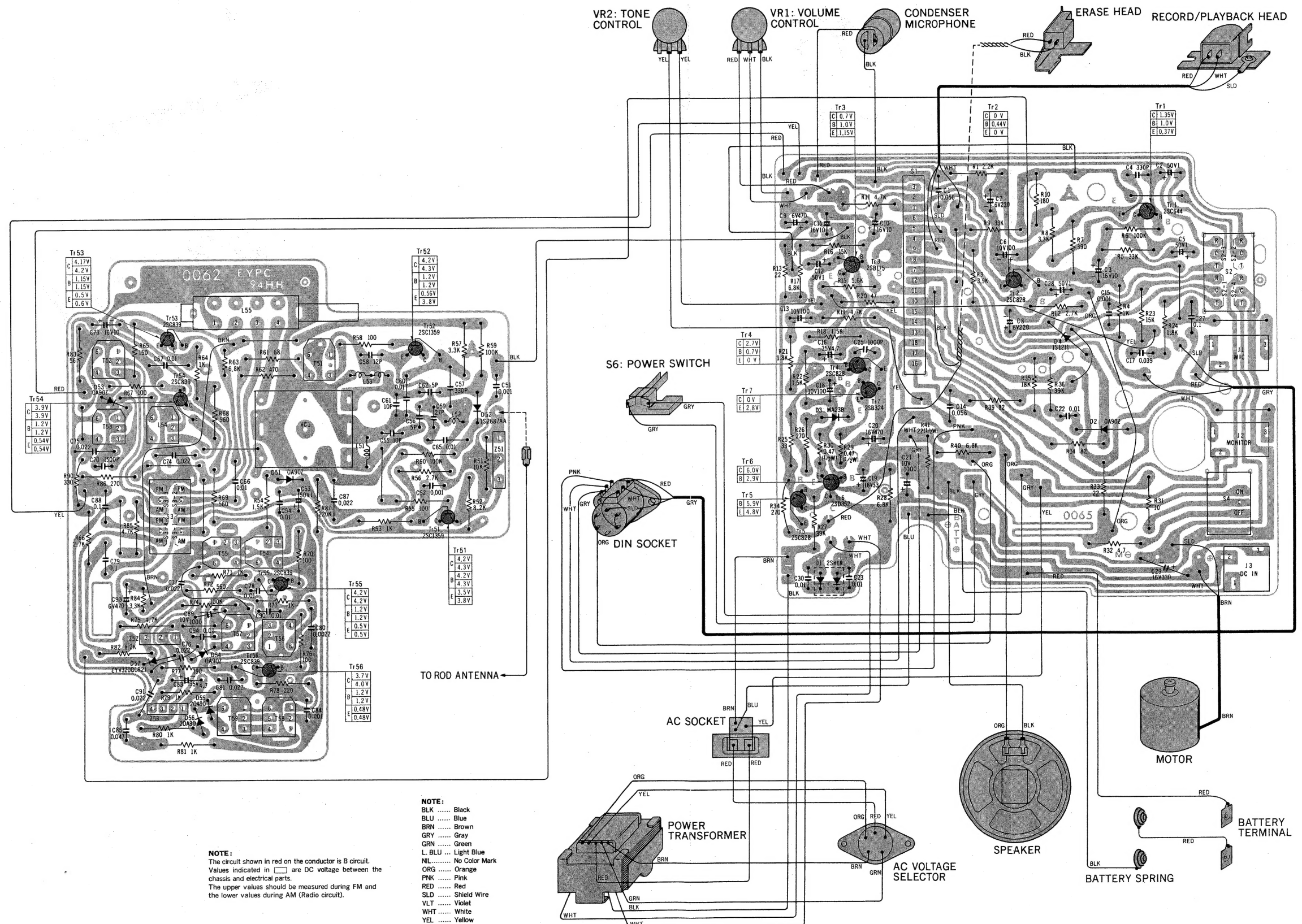
## ELECTRICAL PARTS LOCATION



# SCHEMATIC DIAGRAM MODEL RQ-511S-E

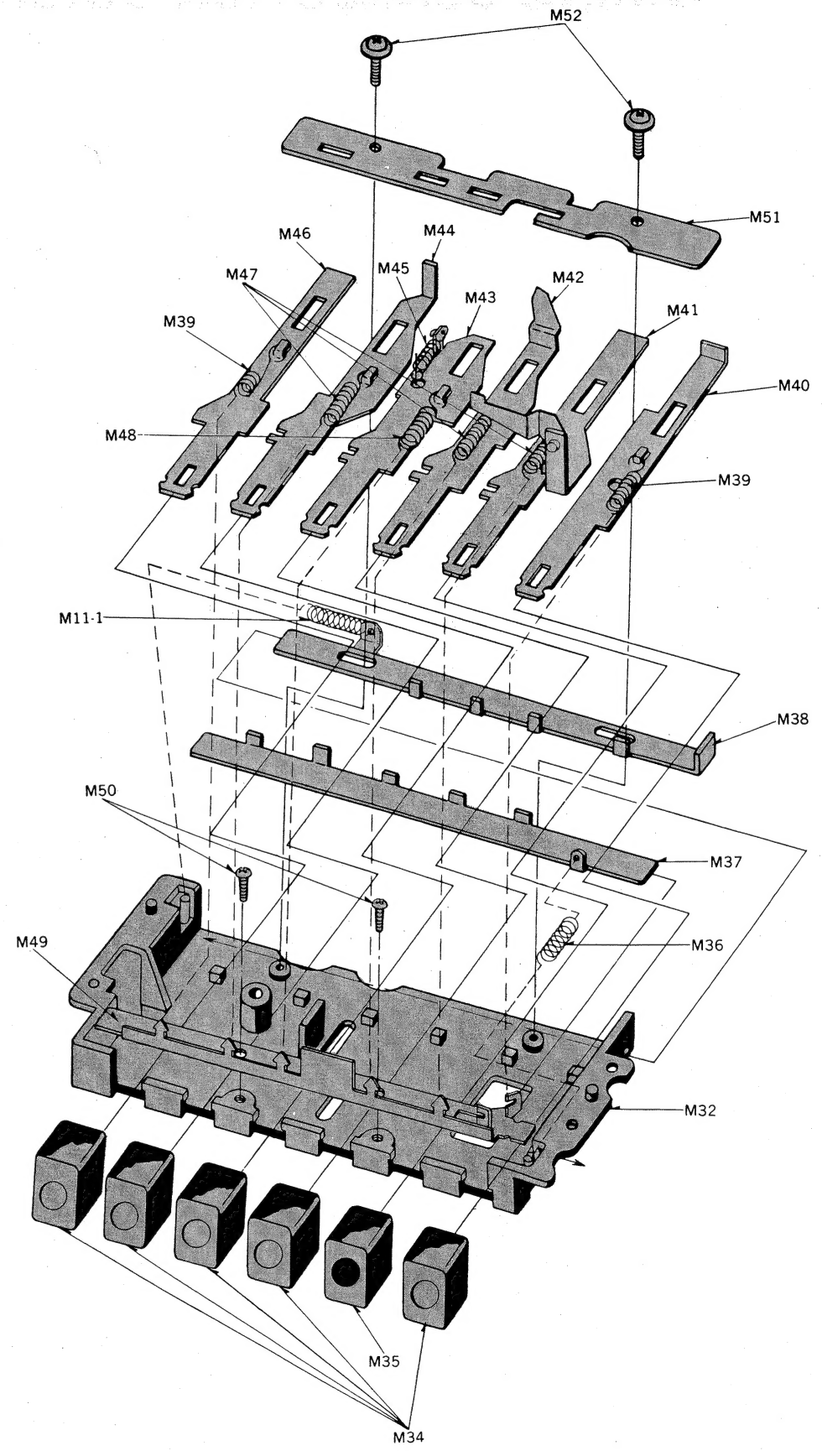
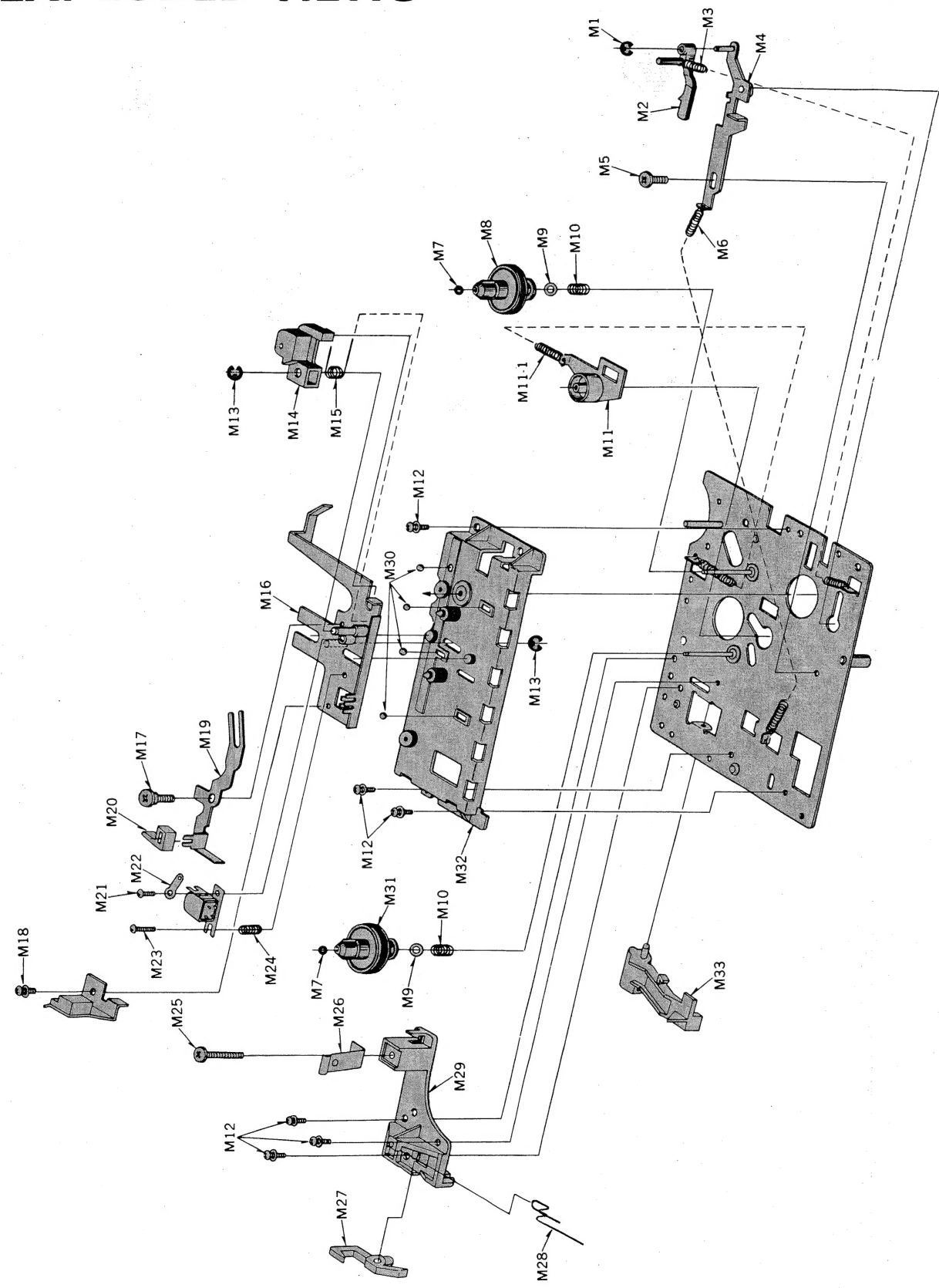


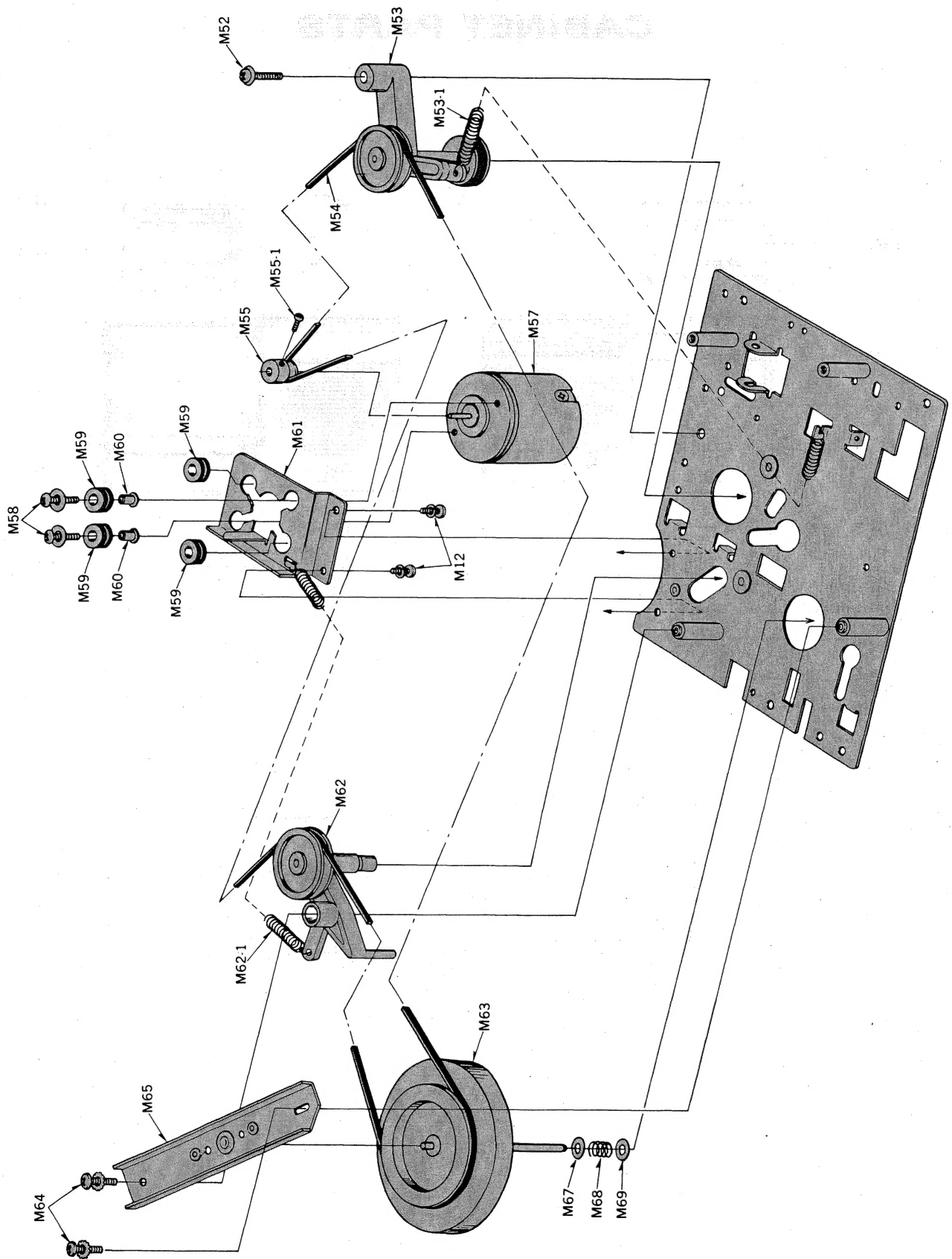
# WIRING CONNECTION DIAGRAM MODEL RQ-511S-E



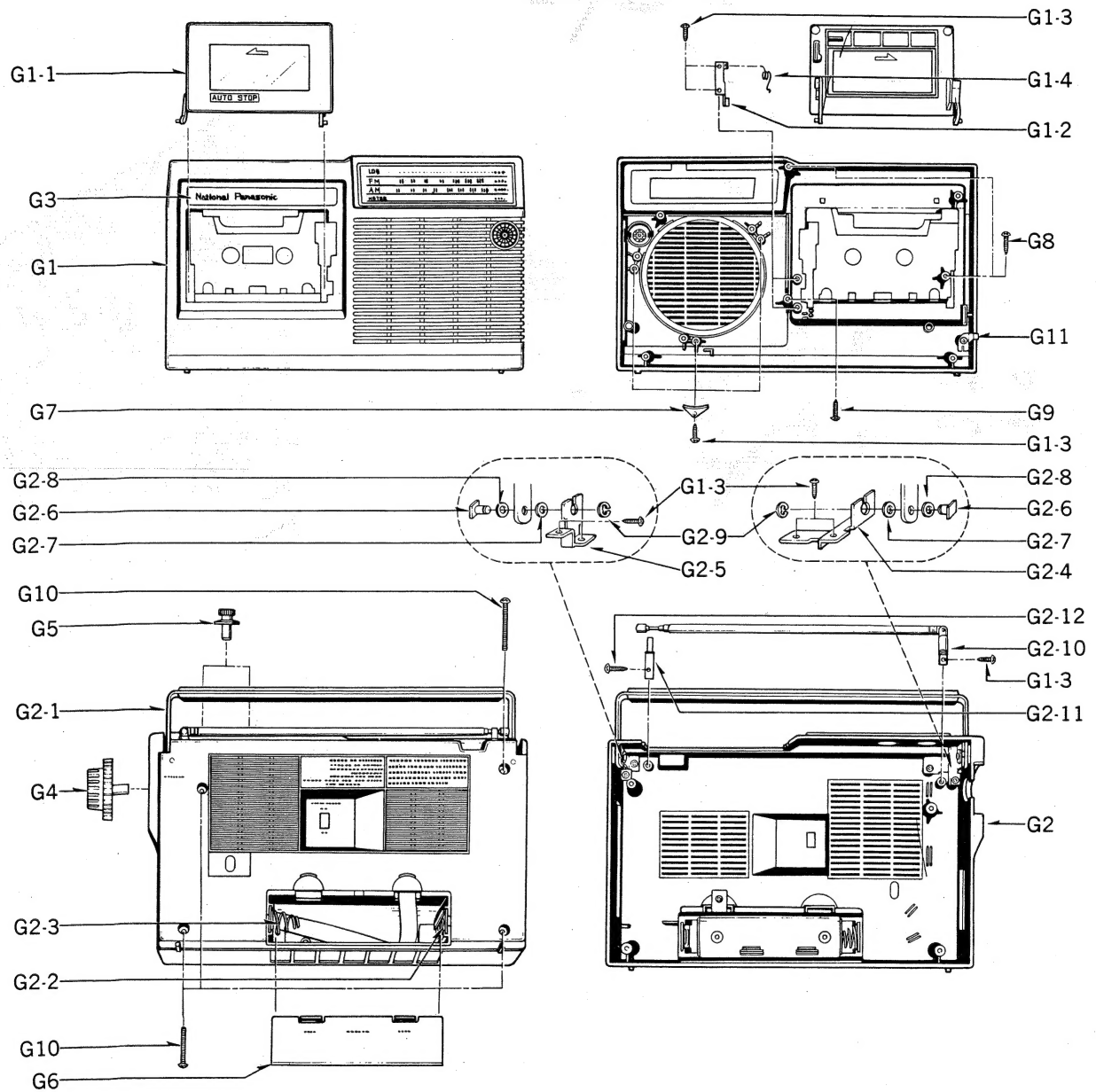


EXPLODED VIEWS





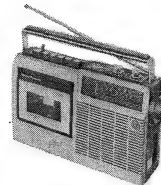
# CABINET PARTS



# REPLACEMENT PARTS LIST

MODEL RQ-511S-E

National Panasonic



RQ-511S-E

## NOTE:

1. Be sure to make your orders of replacement parts according to this list.
2. "N" in "Remarks" column indicates new parts.
3. For parts which are shaded ( ), only parts specified by the manufacturer should be used for replacement in critical circuit.

## NOTA:

1. Habrá que asegurarse que los pedidos de piezas de repuesto se hagan según esta lista.
2. "N" marcado en la columna "Remarks", quiere decir que las piezas son nuevas.
3. Para las partes de la lista que están sombreadas ( ), deben ser usadas para hacer el reemplazo en los circuitos críticos solamente las partes que están especificadas por el productor.

## NOTE:

1. Bien s'assutet de se conformer à la liste suivante pour les commandes de pièces de rechange.
2. "N", dans la colonne "Remarks", indique les pièces nouvelles.
3. Concernant les pièces dans les parties hachurées ( ), doivent être remplacées dans les circuits critiques uniquement par des pièces spécifiées par le fabricant.

## HIEINWEIS:

1. Bestellen Sie Ihre Ersatzteile genau nach dieser Liste.
2. "N" in der "Remarks" Spalte bedeutet "neue Teile".
3. Für diejenigen Positionen in der Ersatzteil-Liste, die auf schraffiertem Untergrund ( ) gedruckt sind, dürfen nur vom Hersteller zugelassene Fabrikate als Ersatzteile in den kritischen Schaltkreisen verwendet werden.

## 按:

1. 關於代用零件之訂購，務請依照此表而行之為荷。
2. 「備考」(Remarks)一欄中之 "N" 形符號標記表示該零件為新出品。
3. 印有灰色 ( ) 的標號表示，祇有那些由製造公司所指定及證明的零件，才能用來代換。

RQ-511S-E

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
<b>MECHANICAL PARTS</b>				
M1	XUC25FT	Stop Ring E2.5 φ	1	COMMON
M2	QML2440	Auto Stop Driving Pawl	1	RQ-432S-E
M3	QBT1807	Auto Stop Spring	1	"
M4	QXL0661Z	Auto Stop Driving Lever Unit	1	"
M5	QHQ1168	Screw	1	"
M6	QBT1641DM	Auto Stop Lever Spring	1	"
M7	QWQ1124	Snap Washer	2	"
M8	QXP0411A	Takeup Reel Table Assembly	1	"
M9	QWQT0005	Tetoron Washer	2	"
M10	QBC1225	Back Tension Spring	2	"
M11	QXL0735A	Idler Lever Assembly	1	"
M11-1	QBT1405DM	Idler Lever Spring	2	RQ-445FLS-E
M12	XYN26+C6	Screw ⊕2.6×6	8	COMMON
M13	XUC3FT	Stop Ring E3 φ	2	"
M14	QXL0664	Pressure Roller Lever Unit	1	RQ-432S-E
M15	QBT1632	Pressure Roller Lever Spring	1	"
M16	QXK1625	Head Base Plate Unit	1	N
M17	QHQ1220	Screw	1	RQ-416S-E
M18	XYN26+3	Screw ⊕2.6×3	1	COMMON
M19	QML2897	Auto Stop Detect Lever	1	RQ-445FLS-E
M20	QBJ1585	Detecting Piece	1	RQ-432S-E
M21	XSN2+4	Screw ⊕2×4	1	COMMON
M22	QJT0039	Lug Terminal	1	RQ-432S-E
M23	QHQ1199	Screw	1	RS-269US-E
M24	QBC1103A	Head Spring	1	"
M25	XSN26+18	Screw ⊕2.6×18	1	COMMON
M26	QBP1647	Cassette Holding Metal	1	RQ-432S-E
M27	QML2877	Erase Prevention Lever	1	N
M28	QBN1465	Spring	1	N
M29	QMK1528	Cassette Plate	1	N
M30	QDK1006	Steel Ball 2.5 φ	4	RS-671US
M31	QXD0053	Supply Reel Table Assembly	1	N
M32	QXK1710	Upper Plate Unit	1	RQ-306S



## RQ-511S-E

## RQ-511S-E

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M33	QML2878	Eject Lever-B	1	②
M34	QXBK0067	Push Button-1 Assembly	5	RQ-432S-E
M35	QXBK0068	Push Button-2 Assembly	1	"
M36	QBT1652DM	Catch Lever Spring	2	②
M37	QML2654ZA	Catch Lever	1	②
M38	QML2392Z	Switch Selector Lever	1	RQ-432S-E
M39	QBT1805EM	Stop Lever Spring	2	②
M40	QMR1467Z	Eject Lever	1	②
M41	QXR0164A	Record Lever-A Unit	1	②
M42	QML2387ZA	Rewind Lever	1	②
M43	QMR1466Z	Playback Lever	1	②
M44	QML2389Z	Fast Forward Lever	1	RQ-443S
M45	QBT1801DM	Playback Lever Spring-A	1	②
M46	QML2390Z	Stop Lever	1	RQ-443S
M47	QBT1654EM	Fast Forward Lever Spring	3	②
M48	QBT1634EM	Playback Lever Spring-B	1	②
M49	QML2944ZA	Spring Hook Lever	1	②
M50	XTS26+6B	Screw $\Phi 2.6 \times 6$	2	COMMON
M51	QMF1637ZB	Lock Plate	1	②
M52	XTW26+10B	Tapping Screw $\Phi 2.6 \times 10$	3	COMMON
M53	QXL0658A	Connection Pulley Lever Assembly	1	RQ-316S
M53-1	QBT1484DM	Fast Forward Lever Spring-1	1	RQ-432S-E
M54	QDB0160	Motor Belt	1	RQ-416S
M55	QXP0031	Motor Pulley	1	RQ-445FLS-E
M55-1	XSN2+5	Motor Pulley Set Screw	1	COMMON
M57	MHT5ST6Y	Motor	1	RQ-312S
M58	XYN26+B7	Screw	2	COMMON
M59	QBG1373	Motor Rubber Cushion	4	RQ-309S-E
M60	QMC0013	Motor Holding Pipe	2	RQ-416S
M61	QMA2635ZA	Motor Holding Angle	1	②
M62	QXL0967	Playback Connection Pulley Lever Assembly	1	②
M62-1	QBT1806DM	Playback Connection Pulley Lever Spring	1	②
M63	QXF0082	Flywheel Unit	1	RQ-432S-E
M64	XSN26+F6	Screw $\Phi 2.6 \times 6$	2	COMMON
M65	QXL0666ZA	Flywheel Retainer Unit	1	②

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M67	QBJ3310	Washer	1	RQ-432S-E
M68	QBC1210	Spring	1	"
M69	QBJ3311	Washer	1	"
		<b>RESISTORS</b>		
R1	ERD25TJ222	Carbon Resistor 2.2K $\Omega$ 1/4W	1	
R3	ERD25TJ392	" 3.9K $\Omega$ 1/4W	1	
R4	ERD25TJ102	" 1K $\Omega$ 1/4W	1	
R5	ERD25TJ333	" 33K $\Omega$ 1/4W	1	
R6	ERD25TJ104	" 100K $\Omega$ 1/4W	1	
R7	ERD25TJ391	" 390 $\Omega$ 1/4W	1	
R8	ERD25TJ332	" 3.3K $\Omega$ 1/4W	1	
R9	ERD25TJ333	" 33K $\Omega$ 1/4W	1	
R10	ERD25TJ181	" 180 $\Omega$ 1/4W	1	
R11	ERD25TJ472	" 4.7K $\Omega$ 1/4W	1	
R12	ERD25TJ272	" 2.7K $\Omega$ 1/4W	1	
R13	ERD25TJ220	" 22 $\Omega$ 1/4W	1	
R14	ERD25TJ820	" 82 $\Omega$ 1/4W	1	
R15	ERD25TJ562	" 5.6K $\Omega$ 1/4W	1	
R16	ERD25TJ153	" 15K $\Omega$ 1/4W	1	
R17	ERD25TJ682	" 6.8K $\Omega$ 1/4W	1	
R18	ERD25TJ152	" 1.5K $\Omega$ 1/4W	1	
R19	ERD25TJ472	" 4.7K $\Omega$ 1/4W	1	
R20	ERD25TJ470	" 47 $\Omega$ 1/4W	1	
R21	ERD25TJ182	" 1.8K $\Omega$ 1/4W	1	
R22	ERD25TJ152	" 1.5K $\Omega$ 1/4W	1	
R23	ERD25TJ153	" 15K $\Omega$ 1/4W	1	
R24	ERD25TJ182	" 1.8K $\Omega$ 1/4W	1	
R25	ERD25TJ330	" 33 $\Omega$ 1/4W	1	
R26	ERD25TJ271	" 270 $\Omega$ 1/4W	1	
R27	ERD25TJ393	" 39K $\Omega$ 1/4W	1	
R28	ERD25TJ682	" 6.8K $\Omega$ 1/4W	1	
R29, 30	ERX12ANJR47	Wire-wound Resistor 0.47 $\Omega$ 1/2W	2	
R31	ERD25TJ100	Carbon Resistor 10 $\Omega$ 1/4W	1	
R32	ERD25TJ4R7	" 4.7 $\Omega$ 1/4W	1	

## RQ-511S-E

## RQ-511S-E

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R33	ERD25TJ220	Carbon Resistor 22Ω 1/4W	1	
R34	ERD25TJ271	" 270Ω 1/4W	1	
R35	ERD25TJ183	" 18KΩ 1/4W	1	
R36	ERD25TJ393	" 39KΩ 1/4W	1	
R39	ERD25TJ820	" 82Ω 1/4W	1	
R40	ERD25TJ682	" 6.8KΩ 1/4W	1	
R41	ERD50TJ220	Solid Resistor 22Ω 1/2W	1	
R51	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	1	
R52	ERD25TJ822	" 8.2KΩ 1/4W	1	
R53	ERD25TJ102	" 1KΩ 1/4W	1	
R54	ERD25TJ152	" 1.5KΩ 1/4W	1	
R55	ERD25TJ101	" 100Ω 1/4W	1	
R56	ERD25TJ272	" 2.7KΩ 1/4W	1	
R57	ERD25TJ332	" 3.3KΩ 1/4W	1	
R58	ERD25TJ101	" 100Ω 1/4W	1	
R59, 60	ERD25TJ104	" 100KΩ 1/4W	2	
R61	ERD25TJ680	" 68Ω 1/4W	1	
R62	ERD25TJ471	" 470Ω 1/4W	1	
R63	ERD25TJ682	" 6.8KΩ 1/4W	1	
R64	ERD25TJ102	" 1KΩ 1/4W	1	
R65	ERD25TJ151	" 150Ω 1/4W	1	
R66	ERD25TJ272	" 2.7KΩ 1/4W	1	
R67	ERD25TJ101	" 100Ω 1/4W	1	
R68, 69	ERD25TJ561	" 560Ω 1/4W	1	
R70	ERD25TJ101	" 100Ω 1/4W	1	
R71	ERD25TJ102	" 1KΩ 1/4W	1	
R72	ERD25TJ561	" 560Ω 1/4W	1	
R73	ERD25TJ102	" 1KΩ 1/4W	1	
R74	ERD25TJ104	" 100KΩ 1/4W	1	
R75	ERD25TJ472	" 4.7KΩ 1/4W	1	
R76	ERD25TJ101	" 100Ω 1/4W	1	
R77	ERD25TJ391	" 390Ω 1/4W	1	
R78	ERD25TJ221	" 220Ω 1/4W	1	
R79, 80, 81	ERD25TJ102	" 1KΩ 1/4W	3	
R82	ERD25TJ822	" 8.2KΩ 1/4W	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R83	ERD25TJ560	Carbon Resistor 56Ω 1/4W	1	
R84	ERD25TJ332	" 3.3KΩ 1/4W	1	
R85	ERD25TJ472	" 4.7KΩ 1/4W	1	
R86	ERD25TJ271	" 270Ω 1/4W	1	
R87	ERD25TJ224	" 220KΩ 1/4W	1	
R90	ERD25TJ331	" 330Ω 1/4W	1	
<b><u>VARIABLE RESISTORS</u></b>				
VR1	EVHB0AK15A53	Variable Resistor 5KΩ(A)	1	Ⓝ
VR2	EVHB0AK15A14	Variable Resistor 10KΩ(A)	1	Ⓝ
<b><u>CAPACITORS</u></b>				
C1	ECQM05563MZ	Mylar Capacitor 0.056μF	1	
C2	ECEA50V1	Electrolytic Capacitor 1μF	1	
C3	ECEA16V10	" 10μF	1	
C4	ECKD1H331MB	Ceramic Capacitor 330pF	1	
C5	ECEA50V1	Electrolytic Capacitor 1μF	1	
C6	ECEA10V100	" 100μF	1	
C7, 8	ECEA6V220	" 220μF	2	
C9	ECEA6V470	" 470μF	1	
C10, 11	ECEA16V10	" 10μF	2	
C12	ECEA50V1	" 1μF	1	
C13	ECEA10V100	" 100μF	1	
C14	ECQM05563MZ	Mylar Capacitor 0.056μF	1	
C15	ECQM05102MZ	" 0.001μF	1	
C16	ECEA35V4R7	Electrolytic Capacitor 4.7μF	1	
C17	ECQM05393MZ	Mylar Capacitor 0.039μF	1	
C18	ECEA10V100	Electrolytic Capacitor 100μF	1	
C19	ECEA16V33	" 33μF	1	
C20	ECEA16V470	" 470μF	1	
C21	ECEA10V1000	" 1000μF	1	
C22	ECQM05103MZ	Mylar Capacitor 0.01μF	1	
C23	ECKD1H103PF	Ceramic Capacitor 0.01μF	1	
C25	ECKD1H102MD	" 1000pF	1	
C27	ECQM05104MZ	Mylar Capacitor 0.1μF	1	

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Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
C28	ECEA50V1	Electrolytic Capacitor 1 $\mu$ F	1	
C29	ECEA16V330	" 330 $\mu$ F	1	
C30	ECKD1H103PF	Ceramic Capacitor 0.01 $\mu$ F	1	
C51, 52	ECKD1H102MD	" 0.001 $\mu$ F	1	
C53	ECEA50V1	Electrolytic Capacitor 1 $\mu$ F	1	
C54	ECKD1H103PF	Ceramic Capacitor 0.01 $\mu$ F	1	
C55	ECCD1H100F	" 10pF	1	
C56	ECCD1H050C	" 5pF	1	
C57	ECCD1H331K	" 330pF	1	
C58	ECCD1H120K	" 12pF	1	
C59	ECCD1H270K	" 27pF	1	
C60	ECKD1H103MD	" 0.01 $\mu$ F	1	
C61	ECCD1H100F	" 10pF	1	
C62	ECCD1H050C	" 5pF	1	
C65, 66, 67	ECKD1H103MD	" 0.01 $\mu$ F	3	
C69	ECCD1H020C	" 2pF	1	
C70	ECQS1152KZ	Styrol Capacitor 1500pF	1	
C73	ECEA16V10	Electrolytic Capacitor 10 $\mu$ F	1	
C74, 75, 76, 77	ECKD1H223PF	Ceramic Capacitor 0.022 $\mu$ F	4	
C78	ECKD1H103PF	" 0.01 $\mu$ F	1	
C79	ECQM05104MZ	Mylar Capacitor 0.1 $\mu$ F	1	
C80, 81	ECKD1H223PF	Ceramic Capacitor 0.022 $\mu$ F	2	
C83	ECEB35V4R7	Electrolytic Capacitor 4.7 $\mu$ F	1	
C84	ECKD1H102MD	Ceramic Capacitor 0.001 $\mu$ F	1	
C85	ECQM1H473MZ	Mylar Capacitor 0.047 $\mu$ F	1	
C87	ECKD1H223PF	Ceramic Capacitor 0.022 $\mu$ F	1	
C88	ECQM05104MZ	Mylar Capacitor 0.1 $\mu$ F	1	
C89	ECEA10V1000	Electrolytic Capacitor 1000 $\mu$ F	1	
C90	ECKD1H103PF	Ceramic Capacitor 0.01 $\mu$ F	1	
C91	ECKD1H223PF	" 0.022 $\mu$ F	1	
C93	ECEA6V470	Electrolytic Capacitor 470 $\mu$ F	1	
C94	ECKD1H103PF	Ceramic Capacitor 0.01 $\mu$ F	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		<b><u>VARIABLE CAPACITOR</u></b>		
VC1	PVC2LX20T3L	Variable Capacitor	1	RS-457S
		<b><u>COMBINATION PARTS</u></b>		
Z51	RXAFF88108M	L-C Combination	1	⑧
Z52	EXAF203Z471R	C-R Combination	1	RQ-443S-E
Z53	EXA5DL04C	"	1	RQ-544S
		<b><u>TRANSISTORS</u></b>		
Tr1	2SC644	Transistor	1	RQ-305S
Tr2	2SC828	"	1	"
Tr3	2SB175	"	1	"
Tr4, 5	2SC828	"	1	"
Tr6	2SD352	"	1	"
Tr7	2SB324	"	1	RQ-432S-E
Tr51, 52	2SC1359	"	2	RQ-544S
Tr53, 54, 55, 56	2SC839	"	4	⑨
		<b><u>DIODES</u></b>		
D1	2SR1K	Rectifier	1	RQ-309S-E
D2	OA90Z	Diode	1	RQ-312S-E
D3	MA23B	"	1	⑩
D4	1S1211	"	1	RQ-320S
D51	OA90Z	"	1	RQ-312S-E
D52	1S2687AA	"	1	RQ-445FLS-E
D53, 54	OA90Z	"	2	RQ-312S-E
D55, 56	20A90	"	2	RQ-432S-E
D57	EYV320D1R2J3	"	1	⑪
		<b><u>TRANSFORMERS</u></b>		
T1	QLP0716WAT	Power Transformer	1	RQ-305S
T51	RLI4M101	FM IFT	1	RQ-544S
T52	RLI4M301	"	1	"
T53	RLI2M203	AM IFT	1	"

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Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
T54	RLI2M204	AM IFT	1	RQ-544S
T55, 56	RLI4M301	FM IFT	2	"
T57	RLI2M402	AM IFT	1	"
T58	RLI4M501	FM IFT	1	"
T59	RLI4M502	"	1	"
		<b><u>COILS</u></b>		
L51	RLQY75S5	High Frequency Coil	1	RQ-432S-E
L52	RLD4N5	FM Detect Coil	1	RQ-448FJS-E
L53	RLO4Y53	FM Oscillation Coil	1	RQ-432S-E
L54	ELL7S710B	AM Oscillation Coil	1	RQ-445S
L55	QLF2C020	AM Bar Antenna	1	①
		<b><u>SWITCHES</u></b>		
S1	QSS6203T	Record/Playback Select Switch	1	RQ-306AS
S2	QSS4207H	Tape/Radio Select Switch	1	①
S3	QSS4211H	Radio Band Select Switch	1	①
S4	QSS1206H	Monitor ON/OFF Switch	1	RQ-316S
S5	Refer to E13	AC/DC Select Switch	(1)	
S6	QSB0170A	Power Switch	1	RQ-432S-E
S7	Refer to J4	DIN Switch	(1)	
S8	QSR0004B	AC Voltage Select Switch	1	RQ-448FJS-E
		<b><u>JACKS</u></b>		
J1	QJA0125	EXT. MIC Jack	1	RQ-432S-E
J2	QJA0125	Monitor Jack	1	"
J3	QJA0137	DC-IN Jack	1	RQ-445FLS-E
J4	QJA0429A	DIN Jack	1	RQ-544S
		<b><u>ELECTRICAL PARTS</u></b>		
E1	QWY0120	Record/Playback Head	1	RQ-445FLS-E
E2	QWY2123	Erase Head	1	"
E3	WM034Z	Built-in Microphone	1	RQ-544S
E4	QBGK0049	Microphone Cushion	1	①
E5	EAS10P97SJ	Speaker	1	①

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
E6	QGJ1291C	Jack Plate-L	1	①
E7	QGJK0050	Jack Plate-R	1	①
E8	QXS1064	Tuning Shaft Assembly	1	RQ-544S
E9	QTQ0024	Dial Drum	1	①
E10	QBT1531	Dial Spring	1	RQ-432S-E
E11	RDZ053	Dial String	1	"
E12	QKT1740A	Dial Indicator	1	①
E13	QJS0316H	AC Socket	1	RQ-309AS-E
E14	QDP1678	Roller	6	RQ-544S
E15	QTSK0040	Shield Plate	1	①
E16	QTH1033	Heat Sink	2	RQ-312S
		<b><u>CABINET PARTS</u></b>		
G1	QYMK0012W	Main Body Case Assembly	1	①
G1-1	QYF0245	Cassette Lid Assembly	1	①
G1-2	QMA2643	Cassette Lid Holding Metal	1	①
G1-3	XTN3+8B	Screw	11	COMMON
G1-4	QBN1360	Cassette Lid Spring	1	RQ-316S
G2	QYM0310A	Bottom Case Assembly	1	①
G2-1	QYH0062	Handle Assembly	1	①
G2-2	QJB0042	Battery Terminal	2	RQ-445FLS-E
G2-3	QJB0016	Battery Spring	2	"
G2-4	QMA2752C	Handle Angle-R	1	①
G2-5	QMA2753D	Handle Angle-L	1	①
G2-6	QKJ0105	Handle Shaft	2	①
G2-7	QBW2044	Washer 0.3t	2	①
G2-8	QBW2045	Washer 0.5t	2	①
G2-9	XUCR6FT	Stop Ring	2	COMMON
G2-10	XEAQCR228DAY	Rod Antenna	1	①
G2-11	QKJ0104	Rod Antenna Rest	1	①
G2-12	XTN3+10B	Tapping Screw $\Phi 3 \times 10$	1	COMMON
G3	QYP0595	Ornamental Plate Assembly	1	①
G4	QYT0389	Tuning Knob	1	①
G5	QYT0398	Volume Control Knob	2	①
G6	QYD1014	Battery Cover Assembly	1	RQ-546FLS-E

[illegible]